

VARIABLE	PROGRESSION FREE SURVIVAL		
	<u>Corticosteroids</u>	<u>Antibiotics</u>	<u>PPIs</u>
	<u>HR (95% CI); p - value</u>	<u>HR (95% CI); p - value</u>	<u>HR (95% CI); p - value</u>
Cohort Pembrolizumab vs Chemotherapy	0.53 (0.46–0.61); <i>p</i> <0.0001	0.57 (0.50–0.64); <i>p</i> <0.0001	0.53 (0.45–0.64); <i>p</i> <0.0001
Corticosteroids Yes vs No	1.07 (0.88–1.29); <i>p</i> =0.4644	-	-
Interaction Corticosteroids*Cohort	p<0.0001	-	-
Antibiotics Yes vs No	-	0.96 (0.75–1.22); <i>p</i> =0.7405	-
Interaction Antibiotics*Cohort	-	p=0.0290	-
PPIs Yes vs No	-	-	1.08 (0.91–1.29); <i>p</i> =0.3375
Interaction PPI*Cohort	-	-	p=0.0487
Gender Male vs Female	1.12 (0.99–1.27); <i>p</i> =0.0691	1.13 (1.01–1.29); <i>p</i> =0.0044	1.12 (0.99–1.28); <i>p</i> =0.0604
Age Elderly vs Non-elderly	1.02 (0.91–1.15); <i>p</i> =0.6503	1.03 (0.91–1.15); <i>p</i> =0.6204	1.02 (0.91–1.15); <i>p</i> =0.6890
ECOG PS ≥2 vs 0-1	1.90 (1.63–2.21); <i>p</i> <0.0001	1.91 (1.64–2.22); <i>p</i> <0.0001	1.88 (1.61–2.19); <i>p</i> <0.0001
Smoking status Current/former vs Never	1.21 (1.01–1.45); <i>p</i> =0.0315	1.21 (1.01–1.46); <i>p</i> =0.0304	1.22 (1.02–1.46); <i>p</i> =0.0289
CNS metastases Yes vs No	1.02 (0.88–1.19); <i>p</i> =0.7383	1.13 (0.97–1.31); <i>p</i> =0.0940	1.12 (0.96–1.30); <i>p</i> =0.1220
Bone metastases Yes vs No	1.43 (1.27–1.62); <i>p</i> <0.0001	1.49 (1.31–1.68); <i>p</i> <0.0001	1.46 (1.29–1.65); <i>p</i> <0.0001
Liver metastases Yes vs No	1.54 (1.32–1.79); <i>p</i> <0.0001	1.58 (1.35–1.84); <i>p</i> <0.0001	1.59 (1.37–1.85); <i>p</i> <0.0001